IN THE CLAIMS

This is a complete and current listing of the claims, marked with status identifiers in parentheses. The following listing of claims will replace all prior versions and listings of claims in the application.

1. (Previously Presented) A method for milking an animal using a milking machine, wherein said milking machine comprises at least a first teat cup, said first teat cup comprises a teat cup liner and a teat cup shell, said teat cup liner comprises a lower end connected to a milking vacuum source for drawing milk from said milking animal, and a top end forming a space and an teat entrance in which a teat of a milking animal is to be introduced, said teat cup liner further comprises an inlet to said space connected to a source, said method is characterised by the step of:

   - setting the vacuum level in said space so that the vacuum difference between the vacuum level in said lower end and the vacuum level in said space is related to a milking criteria for the animal being milked.

2. (Previously Presented) The method according to claim 1, wherein

   - said vacuum difference is dynamically varied during the milking depending on the momentary milk flow.

3. (Previously Presented) The method according to claim 1, wherein

   - said milking criteria is the expected time to finish the milking for a particular udder quarter being milked.

4. (Previously Presented) The method according to claim 1, wherein

   - said milking criteria is the expected milk yield.

5. (Previously Presented) The method according to claim 1, wherein

   - said milking machine comprises one teat cup for each udder quarter to be milked,

   and comprising the step of:

   - setting the vacuum level in said space in each teat cup so that all udder quarters

   finish milking simultaneously.

6. (Previously Presented) The method according to claim 1, wherein

   - said vacuum level in said space is set at start of milking.

7. (Previously Presented) The method according to claim 1, wherein

   - said vacuum level in said space is set dynamically during milking.

8. (Previously Presented) The method according to claim 1, wherein

   - said milking machine comprises an animal identification system and a computer

   storing individual animal related milking parameters, and comprising the step of:

   - setting said vacuum level in said space individually for each animal being milked by

   said milking machine, or individually for each udder quarter for each animal being

   milked by said milking machine.

9. (Previously Presented) The method according to claim 1, wherein

   - said milking machine comprises vacuum difference measuring means, provided to

   measure the vacuum difference between the lower end of said teat cup liner and said

   space, and comprising the step of:

   - adjusting said vacuum level in said space during milking in dependence of at least

   said measured vacuum difference.

10. (Previously Presented) The method according to claim 1, wherein

- said vacuum level in said space is set to a first value during a first part of said milking and to a second value during a second part of said milking.

11. (Previously Presented) The method according to claim 1, wherein

- said vacuum level in said space is set so that an increased vacuum difference is achieved between said space and said teat cup liner lower end for animals having a higher milk flow than the average milking animal.

12. (Previously Presented) The method according to claim 1, wherein

- said teat cup shell or teat cup liner comprises a sensor for sensing vacuum levels in said space.

13. (Currently Amended) A milking machine comprising at least a first teat cup comprising a teat cup shell and a teat cup liner, said teat cup liner comprises a lower end connected to a milking vacuum source for drawing milk from said milking animal, and a top end forming a space and an teat entrance in which a teat of a milking animal is to be introduced, said teat cup liner further comprises an inlet to said space connected to a source,

~~characterised by~~wherein

-control means controlling the vacuum in said space in relation to a milking criteria of said animal.

14. (Previously Presented) The milking machine according to claim 13, comprising

- animal identification means provided to detect the identity of a milking animal and relate said identity to at least one milking criteria.

15. (Previously Presented) The milking machine according to claim 13, wherein

- said vacuum difference is dynamically varied during the milking process depending upon the momentary milk flow.

16. (Previously Presented) The milking machine according to claim 13, wherein

- said milking criteria is the expected time to finish the milking for the particular udder quarter being milked.

17. (Previously Presented) The milking machine according to claim 13, wherein

- said milking criteria is the expected milk yield.

18. (Previously Presented) The milking machine according to claim 13, wherein

- said milking machine comprises one teat cup for each udder quarter to be milked, and

- said control means is provided to set the vacuum level in said space in each teat cup so that all udder quarters finish milking simultaneously.

19. (Previously Presented) The milking machine according to claim 13, wherein

- said vacuum level in said space is set at start of milking.

20. (Previously Presented) The milking machine according to claim 13, wherein

- said vacuum level in said space is set dynamically during milking.

21. (Previously Presented) The milking machine according to claim 13, wherein

- said milking machine comprises vacuum difference measuring means, provided to measure the vacuum difference between the lower end of said teat cup liner and said space, and

- said control means is provided to adjust said vacuum level in said space during milking in dependence of at least said measured vacuum difference.

22. (Previously Presented) The milking machine according to claim 13, wherein

- said vacuum level in said space is set to a first value during a first part of said

milking and to a second value during a second part of said milking.

23. (Previously Presented) The milking machine according to claim 13, wherein

- said vacuum level in said space is set so that an increased vacuum difference is

achieved between said space and said teat cup liner lower end for animals having a

higher milk flow than the average milking animal.

24. (Previously Presented) The milking machine according to claim 13, wherein

- said teat cup shell or teat cup liner comprises a sensor for sensing vacuum levels in

said space.